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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,872	01/24/2002	Josep Fontdecaba Buj	Q68112	8688

23373 7590 09/24/2004

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EXAMINER	
ENGLISH, PETER C	

ART UNIT	PAPER NUMBER
3616	

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/031,872	FONTDECABA BUJ, JOSEP	
	Examiner	Art Unit	
	Peter C. English	3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19-33* is/are pending in the application.

4a) Of the above claim(s) *20 and 33* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19 and 21-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 June 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 28 June 2004 has been entered.

Election/Restrictions

2. Claims 20 and 33 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 26 August 2003.

Drawings

3. The proposed drawing corrections filed on 28 June 2004 have been approved by the examiner. However, the replacement drawing sheets are NOT acceptable because they were filed by facsimile. See MPEP 502.01. Corrected formal drawings are required in response to this Office action in order to avoid abandonment of the application.

Specification

4. The specification is objected to because:

In paragraph 1, at lines 4 and 6, "sets of" should be deleted.

In paragraph 1, at line 6, "sets that" should be "wheels that".

In paragraph 1, at line 8, "sets" should be "wheels", and "set" should be "wheel".

In paragraph 15, at line 5, "wheeling set" should be "wheel".

In paragraph 28, at line 3, "wheeling sets" should be "wheels".

In paragraph 28, at line 6, "wheeling set" should be "wheel".

In paragraph 61, at line 7, "springs 71" should be "springs 72".

Appropriate correction is required.

Claim Objections

5. Claims 21-32 are objected to because:

In claim 21, at line 3, "fluid effect" should be "effect fluid".

In claim 27, at line 3, "electro" should be "electric".

In claim 28, at line 3, "the a" should be "a".

In claim 30, at line 2, "of" should be "within".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. Claim 31 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification fails to describe how the device shown in Fig. 27 must be modified in order to utilize a "pneumatic element" (claim 31, line 3). The examiner suggests: in claim 31, at line 3, delete "or pneumatic".

7. Claims 19 and 21-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 19, at line 22, "the corresponding vertical force" lacks proper antecedent basis. The examiner suggests: at lines 21-22, delete "vertical force, which is analogous to the"

In claim 21, at line 6, "...is a pneumatic cavity" is inaccurate because the cavity 56 contains hydraulic fluid that is pressurized by device 62. The examiner suggests: at line 6, change "pneumatic" to "fluid".

In claim 28, at line 3, "the conduit portions" lacks proper antecedent basis. The examiner suggests: at line 3 and line 4, change "conduit portions" to "conduits".

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 19, 21, 22, 25, 26 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heyring et al. '076 (WO 95/23076) in view of Sakai (US 5,486,018). In the embodiment of Fig. 8, Heyring et al. '076 discloses an anti-roll and anti-pitch suspension system comprising: a central resilient element 20 coupled to a pair of central actuating elements 13a, 13b; single effect hydraulic rams 1-4 extending vertically between the four vehicle wheels and the vehicle body; hydropneumatic chambers 5-8 coupled to the hydraulic rams 1-4; conduits 9-12 connecting the rams 1-4 to respective central actuating elements 13a, 13b; and variable flow restricting valves 9b-12b located within the conduits 9-12. In the embodiment of Fig. 5, the central resilient element comprises a central cavity 21a charged with pressurized gas through valve 22a, and the central actuating elements comprise a pair of double pistons 18b-18d and 19b-19d located within a central cylinder 21. The pistons 18b-18d and 19b-19d divide the cylinder 21 into cavities 21a-21c and 14-17. The central cavity 21a is larger than the end cavities 14-17. The conduits 9a-12a are connected to respective end cavities 14-17. In the embodiment of Fig. 10, the central cavity 35 connected to a pneumatic expansion chamber 38 by an electric valve 42. Heyring et al. '076 further discloses that rubber blocks, coil springs and fluid springs can be used interchangeably for the central resilient element (see page 14, lines 19-20).

In Heyring et al. '076 the diagonally opposed rams 1, 3 and 2, 4 are connected to different ones of the central actuating elements 13a, 13b (see Fig. 8). Therefore, Heyring et al. '076 lacks diagonally opposed rams connected to the same central actuating element. In the embodiment of Fig. 10, Sakai teaches diagonally opposed rams 102 connected to the same central actuating element 116. Sakai teaches that this arrangement "is effective for restraining pitching and rolling and also restrains vehicle body movement from a combination of pitching

and rolling" (see column 11, lines 10-18). From this teaching of Sakai, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Heyring et al. '076 by connecting diagonally opposed rams to the same central actuating element because this arrangement is effective for restraining pitching and rolling and also restrains vehicle body movement from a combination of pitching and rolling.

10. Claims 23, 24, 27, 28 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heyring et al. '076 in view of Sakai as applied to claims 21 and 22 above, and further in view of Weiss (US 6,267,387). The Heyring et al. '076 and Sakai combination lacks inner pistons which are larger than the outer pistons. In the embodiment of Fig. 9, Weiss teaches a flow distributor including an inner piston 48 which is larger than outer pistons 46, 47. From this teaching of Weiss, it would have been obvious to further modify Heyring et al. '076 by making the inner pistons (in the Fig. 5 embodiment) larger than the outer pistons in order to tailor performance to a particular application (e.g., a sports car requiring a stiffer suspension). Further, such a modification involving a mere change in size is generally considered to be within the level of ordinary skill in the art.

Response to Arguments

11. Applicant's arguments filed 28 June 2004 have been fully considered but they are not persuasive. Applicant argues that Heyring et al. '076 fails to teach coupled rams that are subjected to forces in the same direction. This argument fails because claim 19 does not define the directions of the forces applied to the wheel actuating elements. Claim 19 only requires that the forces "correspond" (e.g., the forces are similar in magnitude).

Applicant argues that there is no motivation to combine Heyring et al. '076 and Sakai. However, the examiner has identified explicit motivation from Sakai.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter C. English whose telephone number is 703-308-1377. The examiner can normally be reached on Monday through Thursday (7:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 703-308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter C. English 9/21/04
Primary Examiner
Art Unit 3616

pe
21 September 2004